

# Jaroslav Tadeusz Hepel, M.D., F.A.C.R.O

Associate Professor  
Department of Radiation Oncology  
and  
Department of Neurosurgery  
*Warren Alpert Medical School of Brown University*  
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Department of Radiation Oncology  
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## **Education**

### **Undergraduate:**

Aug. 1993 – June 1997 Cornell University  
Ithaca, NY  
Bachelor of Arts in Biology  
Bachelor of Arts in Psychology  
Graduated with distinction in all subjects

### **Medical School:**

Aug. 1997 – May 2001 University of Rochester  
School of Medicine and Dentistry  
Rochester, New York  
Doctor of Medicine

### **Postgraduate Training:**

July 2001 – July 2002 Intern – Internal Medicine  
UCI Medical Center  
University of California at Irvine  
Orange, California

July 2002 – July 2004 Resident – Internal Medicine  
UCI Medical Center  
University of California at Irvine  
Orange, California

July 2005 – June 2008 Resident – Radiation Oncology  
Tufts Medical Center (Formerly NEMC)  
Tufts University  
Boston, Massachusetts

July 2008 – June 2009 Chief Resident – Radiation Oncology  
Tufts Medical Center (Formerly NEMC)

Tufts University  
Boston, Massachusetts

### **Honors and Awards**

1994-1997	Dean's List, Cornell University
1997	Phi Beta Kappa
1997	Phi Kappa Phi
1997	Golden Key National Honor Society
July 2001 – July 2004	Residency Class Representative – Internal Medicine, UCI
July 2008 – June 2009	Chief Resident – Radiation Oncology, Tufts Medical Center
2014	Dean's Excellence in Teaching Award, Warren Alpert Medical School of Brown University
2015	Fellowship in the American College of Radiation Oncology (ACRO)
2015	Dean's Excellence in Teaching Award, Warren Alpert Medical School of Brown University
2015	Educator of the Year, Association of Residents in Radiation Oncology (ARRO)
2019	Top Doctors 2019, <i>Rhode Island Monthly</i>

### **Licensure and Certification**

#### **Board Certification:**

Oct. 2004 – Oct. 2014	American Board of Internal Medicine
May 2010 – Present	American Board of Radiology - Radiation Oncology

#### **Medical Licenses:**

2002 – 2005	California (not renewed upon relocation)
2009 – 2010	Maryland (not renewed upon relocation)
2005 – Present	Massachusetts
2009 – Present	Rhode Island

### **Academic Appointments**

2004	Volunteer Faculty Department of Internal Medicine University of California at Irvine Orange, CA
2005 – 2009	Teaching Fellow Department of Radiation Oncology Tufts University School of Medicine Boston, MA
2005 – 2009	Teaching Fellow Department of Radiation Oncology Warren Alpert Medical School of Brown University Providence, RI
2010 – 2017	Assistant Professor Department of Radiation Oncology

Warren Alpert Medical School of Brown University  
Providence, RI

2016 – 2017

Assistant Professor  
Department of Neurosurgery  
Warren Alpert Medical School of Brown University  
Providence, RI

2010 – 2017

Adjunct Assistant Professor  
Department of Radiation Oncology  
Tufts University School of Medicine  
Boston, MA

2010 – 2015

Associate Director  
Radiation Oncology Residency Program  
Tufts Medical Center and Affiliated Hospitals  
Tufts University School of Medicine  
Boston, MA and Providence, RI

2011 – 2017

Director  
Medical Student Clerkship  
Department of Radiation Oncology  
Warren Alpert Medical School of Brown University  
Providence, RI

2012 – Present

Coordinator  
Resident/Fellow Elective in Radiation Oncology  
Department of Radiation Oncology  
Rhode Island Hospital and  
Warren Alpert Medical School of Brown University  
Providence, RI

2017 – Present

Associate Professor  
Department of Radiation Oncology  
Warren Alpert Medical School of Brown University  
Providence, RI

2017 – Present

Associate Professor  
Department of Neurosurgery  
Warren Alpert Medical School of Brown University  
Providence, RI

2017 – Present

Adjunct Associate Professor  
Department of Radiation Oncology  
Tufts University School of Medicine  
Boston, MA

2015 – Present            Director of Academic Affairs for the  
Department of Radiation Oncology  
Rhode Island Hospital  
Warren Alpert Medical School of Brown University  
Providence, RI  
and  
Department of Radiation Oncology  
Tufts Medical Center  
Tufts University School of Medicine  
Boston, MA

**Hospital/Clinical Appointments**

2004                        Internal Medicine per Diem  
Kaiser Permanente  
Baldwin Park, CA

2004                        Internal Medicine per Diem  
VA Hospital  
Long Beach, CA

2009 – 2010              Radiation Oncologist  
St. Agnes Hospital  
Baltimore, MD

2009 – 2010              Radiation Oncologist  
Greater Baltimore Medical Center  
Baltimore, MD

2010 – Present            Radiation Oncologist  
Tufts Medical Center  
Boston, MA

2010 – Present            Radiation Oncologist  
Miriam Hospital  
Providence, RI

2010 – Present            Radiation Oncologist  
Women and Infants' Hospital  
Providence, RI

2010 – Present            Radiation Oncologist  
Rhode Island Hospital  
Providence, RI

2017 – Present            Radiation Oncologist  
Newport Hospital  
Newport, RI

2010 – Present            Clinical Director, Stereotactic Radiosurgery  
Rhode Island Hospital  
Providence, RI

**National Committees**

2010 – 2015            Member  
Association for Directors of Radiation Oncology Programs (ADROP)

2011 – 2012            Co-Leader  
Clinical Practice Guidelines: Breast Cancer  
American College of Radiation Oncology (ACRO)

2010 – 2015            Disease Site Co-Leader (Breast Cancer)  
American College of Radiation Oncology (ACRO)  
Practice Accreditation Program

2010 – Present        Member  
Standards Committee  
American College of Radiation Oncology (ACRO)

2013 – Present        Member  
Socioeconomic Committee  
American Brachytherapy Society (ABS)

2013 – 2014            Chair - Breast Cancer Section  
Scientific Planning Committee  
Annual Meeting 2014  
American Brachytherapy Society (ABS)

2014 – 2016            Member  
Billing and Coding Evaluation Subcommittee  
American Society of Radiation Oncology (ASTRO)

2014 – 2015            Chair  
Scientific Planning Committee  
Annual Meeting 2015  
American Brachytherapy Society (ABS)

2015 – 2017            Chair  
Membership Committee  
American Brachytherapy Society (ABS)

2015 – 2016            Co-Chair – Miscellaneous Section  
Scientific Planning Committee  
Brachytherapy World Congress 2016

2015 – Present        Disease Site Leader (Breast Cancer)

	American College of Radiation Oncology (ACRO) Practice Accreditation Program
2015 – Present	Medical Director American College of Radiation Oncology (ACRO) Practice Accreditation Program
2017	Abstract Reviewer – Breast Section Scientific Planning Committee Annual Meeting 2017 American Brachytherapy Society (ABS)
2017	Abstract Reviewer – Miscellaneous Section Scientific Planning Committee Annual Meeting 2017 American Brachytherapy Society (ABS)
2017	Abstract Reviewer – Thoracic Section Scientific Planning Committee Annual Meeting 2017 American Society of Radiation Oncology (ASTRO)
2018	Abstract Reviewer – Breast Section Scientific Planning Committee Annual Meeting 2018 American Brachytherapy Society (ABS)
2018	Abstract Reviewer – Thoracic Section Scientific Planning Committee Annual Meeting 2018 American Society of Radiation Oncology (ASTRO)
2018 – Present	Co-Chair Membership Committee American Brachytherapy Society (ABS)
2019	Abstract Reviewer – Breast Section Scientific Planning Committee Annual Meeting 2019 American Brachytherapy Society (ABS)
2019	Abstract Reviewer – Thoracic Section Scientific Planning Committee Annual Meeting 2018 American Society of Radiation Oncology (ASTRO)
2019 – Present	Chair Standards Committee American College of Radiation Oncology (ACRO)

2019 – Present            Board Member  
Board of Chancellors  
American College of Radiation Oncology (ACRO)

**Hospital Committees**

2010 – 2014            Member  
Website Design Committee  
Department of Radiation Oncology  
Rhodes Island Hospital

2010 – 2014            Member  
Marketing Committee  
Radiosurgery Center of Rhode Island (RCRI)

2011 – 2014            Chair  
Quality Council  
Radiosurgery Center of Rhode Island (RCRI)

2012 – 2016            Member  
Patient Satisfaction Improvement Committee  
Department of Radiation Oncology  
Rhodes Island Hospital

2014 – Present           Member  
Breast Cancer Steering Committee  
Rhodes Island Hosp., Miriam Hosp., and Newport Hosp.

2015 – Present           Member  
Quality Improvement Committee  
Department of Radiation Oncology  
Rhodes Island Hospital

2017 – Present           Member  
DFCI-LCI Breast Work Group  
Lifespan Cancer Institute

2017 – Present           Member  
DFCI-LCI CNS Work Group  
Lifespan Cancer Institute

2018 – Present           Member  
Cancer Clinical and Research Council (CCRC)  
Lifespan Cancer Institute

**University Committees**

2010 – Present           Member

Brown University Oncology Research Group (BrUOG)  
Warren Alpert Medical School of Brown University

2010 – Present      Member  
Data Safety Monitoring Committee  
Brown University Oncology Research Group (BrUOG)  
Warren Alpert Medical School of Brown University

2016 – Present      Member  
Medical Physics Residency Education Committee  
Medical Physics Residency Program  
University of Rhode Island

2017 – Present      Associate Chair  
Breast Section  
Brown University Oncology Research Group (BrUOG)  
Warren Alpert Medical School of Brown University

2017 – Present      Chair  
Promotions Committee  
Department of Radiation Oncology  
Warren Alpert Medical School of Brown University

**Special Programmatic Development**

2010                      Stereotactic Radiosurgery  
Great Baltimore Medical Center, Baltimore, MD

2011                      Non-invasive Image-guided Breast Brachytherapy (NIBB) for APBI  
Rhode Island Hospital, Providence, RI

2014                      Gamma Knife Perfexion Stereotactic Radiosurgery  
Rhode Island Hospital, Providence, RI

2014                      BrainLab Stereotactic Radiotherapy and Radiosurgery  
Rhode Island Hospital, Providence, RI

2015                      Align RT treatment positioning and motion management  
Rhode Island Hospital, Providence, RI

2016                      Deep Inspiratory Breath Hold (DIBH) technique for breast cancer  
Rhode Island Hospital, Providence, RI

2019                      Single Isocentric VMAT SRS technique for multiple brain metastases  
Rhode Island Hospital, Providence, RI

**Teaching Responsibilities**

2008 – 2009              Coordinator and lecturer,  
Radiation Oncology weekly Journal Club



	Tufts Medical Center, Boston, MA Frequency: 1-2 hours weekly Audience: 7-10 Residents and Medical Students
2008 – 2009	Coordinator and lecturer, Radiation oncology resident clinical teaching Tufts Medical Center, Boston, MA Tufts Medical Center, Boston, MA Frequency: 4 hours weekly Audience: 7-10 Residents and Medical Students
2008 – 2009	Coordinator, Radiation Oncology Grand Rounds Tufts Medical Center, Boston, MA Frequency: 1 hour weekly Audience: 10-15 Attendings, Residents, and Medical Students
May 18-21, 2012	Lecturer, Gamma Knife Training Course San Juan, Puerto Rico Duration: 3 Days; 8 hours per day Audience: 15 Attending Neurosurgeons and 7 Neurosurgery Residents
2010 – 2011 2013 – 2014 2016 – 2017	Mentor, Medical Student Longitudinal Clerkship Brown University, RIH, Providence, RI
2010 – 2015	Associate Director Radiation Oncology Residency Program Tufts Medical Center and Affiliated Hospitals
May 2012 March 2015 2016	Moderator, Morning Report for Hem/Onc Fellows Lung Cancer Duration: 1 hour Audience: 8-10 Hem Onc Fellows Brown University, RIH, Providence, RI
2013 – 2015	Lecturer, PHY552: Radiation Biology for Medical Physics Graduate Students University of Rhode Island, Providence, RI Frequency: 2 hour/year Audience: 5 Graduate Students
Feb. 7-8, 2014	Lecturer and Panelist, American Brachytherapy Society Quality Management Brachytherapy School 2014 Orlando, FL

Audience: 100

April 3-5, 2014      Lecturer, Discussant, Moderator  
American Brachytherapy Society (ABS)  
Annual Meeting 2014  
San Diego, CA  
Audience: 500

Sept 2014 – March 2015      Mentor  
Doctoring Course – Year 2  
Brown University, Providence, RI  
Duration: ½ day/week for 10 weeks  
Audience: 1 Second year medical student

Sept 2015 – March 2016      Mentor  
Doctoring Course – Year 1  
Brown University, Providence, RI  
Duration: ½ day/week for 10 weeks  
Audience: 1 first year medical student

2010 – Present      Lecturer,  
Radiation Oncology Teaching Rounds  
Rhode Island Hospital, Providence, RI  
Frequency: 1 hour, twice weekly  
Audience: 15-20 Attendings, Residents, and Medical Students

2011 – 2017      Director and Mentor,  
Medical Student Elective Clerkship in Radiation Oncology  
Duration: 2-4 week elective  
Brown University, RIH, Providence, RI

2017 – Present      Mentor,  
Medical Student Elective Clerkship in Radiation Oncology  
Duration: 2-4 week elective  
Brown University, RIH, Providence, RI

2012 – Present      Coordinator and Educator,  
Resident/Fellow Elective in Radiation Oncology  
(Hem/Onc Fellows, Breast Surgery Fellows, Neurosurgery Residents)  
Duration: 2-4 week elective  
Brown University, RIH, Providence, RI

2012 – 2016      Lecturer,  
BIOL 3672 IMS-IV:  
Hematology/Oncology Course for 2<sup>nd</sup> year medical students  
Brown University, Providence, RI  
Frequency: 1 hour/year  
Audience: 100 Medical Students

- 2012 – Present Educator,  
Experience in Rad Onc as part of Hem/Onc elective for Internal  
Medicine Residents  
Duration: ½ day  
Brown University, RIH, Providence, RI
- 2015 – Present Director of Academic Affairs  
Radiation Oncology Residency Program  
Tufts Medical Center and Affiliated Hospitals

### **Professional Societies**

- 2004 – 2006 American Medical Association (AMA)  
2004 – 2006 American College of Physicians (ACP)  
2005 – 2011 American College of Radiology (ACR)  
2010 – 2015 Association for Directors of Radiation Oncology Program (ADROP)  
2005 – Present American Society for Therapeutic Radiology and Oncology (ASTRO)  
2005 – Present American Brachytherapy Society (ABS)  
2007 – Present Massachusetts Medical Society (MMS)  
2008 – Present American Society of Clinical Oncology (ASCO)  
2010 – Present American College of Radiation Oncology (ACRO)

### **Publications**

#### **Original peer-reviewed publications:**

1. Hepel JT, Bruckenstein S, and Hepel M. Effect of pH on Ion Dynamics in Composite PPy/Heparin Films. *Microchemical Journal*, 1997; 55: 179-191.
2. Tabel GM, Hepel JT, Whittaker P, Palal B, and Chandraratna PA. Hypoechoic Areas on Ultrasound Images of Atheroma Are Not Always Diagnostic of Fatty Plaque. *Ultrasound in Medicine and Biology*, 2005; 31(8): 1013-15.
3. Hepel JT, Syed AM, Puthawala A, Sharma A, and Frankel P. Salvage High-Dose-Rate (HDR) Brachytherapy for Recurrent Head and Neck Cancer. *International Journal of Radiation Oncology, Biology, and Physics* 2005; 62(5); 1444-50.
4. MacAusland SG, Hepel JT, Chong FK, Galper SL, Gass JS, Ruthazer R, Wazer DE. An Attempt to Independently Verify the Utility of the Van Nuys Prognostic Index for Ductal Carcinoma In Situ. *Cancer*, 2007; 110(12):2648-53.
5. Hiatt JR, Cardarelli GA, Hepel JT, Wazer DE, and Sternick, ES. A Commissioning Procedure for Breast Intracavitary Electronic Brachytherapy Systems. *Journal of Applied Clinical Medical Physics* 2008; 9(3):2775.
6. Hepel JT, MacAusland SG, Long JP, Wazer DE, and DiPetrillo T. Intensity-Modulated Radiotherapy of the Prostate after Cryotherapy: Initial Experience. *Urology*, 2008; 72(6):1310-4.

7. Chu JCH, Gong X, Cai C, Kirk M, Zusag T, Shott S, Rivard M, Melhus C, Cardarelli G, Hurley A, Hepel JT, Napoli J, and Abrams R. Application of Holographic Display in Radiotherapy Treatment Planning: a Multi-Institutional Study. *Journal of Applied Clinical Medical Physics* 2009; 10(3):2902.
8. Hepel JT, Evans SB, Hiatt JR, Price LL, DiPetrillo T, Wazer DE, and MacAusland SG. Planning the Breast Boost: A Comparison of Three Techniques and Evolution of the Tumor Bed During Treatment. *International Journal of Radiation Oncology, Biology, and Physics* 2009; 74(2):458-463.
9. Hepel JT, Tokita M, MacAusland SG, Evans SB, Hiatt JR, Price LL, DiPetrillo T, Wazer DE. Toxicity of Three-Dimensional Conformal Radiotherapy for Accelerated Partial Breast Irradiation. *International Journal of Radiation Oncology, Biology, and Physics* 2009; 75(5):1290-1296.
10. Hepel JT, Hiatt JR, Cardarelli GA, and Wazer DE. Modeling Study for Optimization of Skin Dose for Partial Breast Irradiation Using Xofig Electronic Brachytherapy Applicator. *Brachytherapy* 2010; 9(1):81-5.
11. Paul Rava P, Dvorak T, Markelewicz RJ, Hiatt JR, Sternick ES, MacAusland SG, Huber K, Wazer DE, Hepel JT. A comparison of the biological effective dose (BED) of 50 kV electronic brachytherapy to iridium-192 high-dose-rate brachytherapy for vaginal cuff irradiation. *Brachytherapy* 2012; 11(5):402-7.
12. Leonard KL, Solomon D, Hepel JT, Hiatt JR, Wazer DE, Dipetrillo TA. Axillary lymph node dose with tangential whole breast radiation in the prone versus supine position: A dosimetric study. *Radiation Oncology* 2012 May 18;7(1):72.
13. Leonard KL, Hepel JT, Hiatt JR, Dipetrillo TA, Price LL, Wazer DE. The Effect of Dose-Volume Parameters and Interfraction Interval on Cosmetic Outcome and Toxicity After 3-Dimensional Conformal Accelerated Partial Breast Irradiation. *International Journal of Radiation Oncology, Biology, and Physics* 2013; 85(3):623-9.
14. Hepel JT, Peter J, Hiatt JR, Patel S, Osibanjo O, Safran H, Curran B and DiPetrillo T. Dosimetric feasibility of dose escalation using SBRT boost for stage III non-small cell lung cancer. *Frontiers in Oncology* 2012; 2:124.
15. Hepel JT and Wazer, DE. A Comparison of Brachytherapy Techniques for Partial Breast Irradiation. *Brachytherapy*, 2012;11(3):163-75.
16. P Rava, KL Leonard, S Sioshansi, B Curran, DE Wazer, R Cosgrove, G Noren, and JT Hepel. Survival among Patients with Greater than 10 Brain Metastases Treated with Stereotactic Radiosurgery. *Journal of Neurosurgery* 2013 Aug; 119(2):457-62.
17. AR Crawford, L Dworkin, KL Leonard, H Khurshid, and JT Hepel. Recurrence of paraneoplastic membranous glomerulonephritis following chemoradiation in a man with non-small-cell lung carcinoma. *Rare Tumors* 2013 May 6; 5(2):62-4.

18. Stewart AJ, Hepel JT, O'Farrell DA, Devlin PM, Price LL, Dale RG, and Wazer DE. Equivalent uniform dose for accelerated partial breast irradiation using the MammoSite applicator. *Radiotherapy and Oncology* 2013, Aug;108(2):232-5.
19. Leonard KL, Hepel JT, Styczynski JR, Hiatt JR, DiPetrillo TA, and Wazer DE. Breast boost using noninvasive image-guided breast brachytherapy vs. external beam: a 2:1 matched-pair analysis. *Clinical Breast Cancer* 2013 Dec;13(6):455-9.
20. Rava P, Sioshansi S, DiPetrillo TA, Cosgrove GR, Melhus C, Wu J, Mignano J, Wazer DE, and Hepel JT. Local recurrence and survival following stereotactic radiosurgery for brain metastases from small-cell lung cancer practical radiation oncology. *Practical Radiation Oncology* 2015 Jan-Feb;5(1):e37-44.
21. Hepel JT, Hiatt JR, Sha S, Leonard KL, Graves TA, Wiggins DL, Mastras D, Pittier A, Brown University Oncology Research Group, and Wazer DE. The Rationale, Technique, and Feasibility of Partial Breast Irradiation Using Non-invasive Image-guided Breast Brachytherapy (NIBB). *Brachytherapy* 2014, Sep-Oct;13(5):493-501.
22. Hepel JT, Leonard KL, Hiatt JR, DiPetrillo TA, Wazer DE. Factors influencing eligibility for breast boost using noninvasive image-guided breast brachytherapy. *Brachytherapy*. 2014 Nov-Dec;13(6):579-83.
23. Aghion DM, Capek S, Howe BM, Hepel JT, Sambandam S, Oyelese AA, Spinner RJ. Perineural tumor spread of bladder cancer causing lumbosacral plexopathy: An anatomic explanation. *Acta Neurochirurgica* 2014 Dec;156(12):2331-6.
24. Leonard KL, Rivard MJ, Wazer DE, Hiatt JR, DiPetrillo TA, Sioshansi S, and Hepel JT. Prescription dose evaluation for APBI with noninvasive image-guided breast brachytherapy using equivalent uniform dose. *Brachytherapy* 2015 Jul-Aug;14(4):496-501.
25. Rivard MJ, Ghadyani HR, Bastien AD, Lutz NN, and Hepel JT. Multi-axis dose accumulation of noninvasive image-guided breast brachytherapy through biomechanical modeling of tissue deformation using the finite element method. *Journal of Contemporary Brachytherapy* 2015 Feb;7(1):55-71.
26. Gorovets D, Rava P, Ebner KD, Tybor DJ, Cielo D, Puthawala Y, Kinsells TJ, DiPetrillo TA, Wazer DE, and Hepel JT. Predictors for long-term survival free from whole brain radiation therapy in patients treated with radiosurgery for limited brain metastases. *Frontiers in Oncology* 2015, May 11;5:110.
27. Ebner D, Rava P, Gorovets D, Cielo D, and Hepel JT. Stereotactic Radiosurgery for Large Brain Metastases. *Journal of Clinical Neuroscience* 2015 Oct;22(10):1650-4.
28. Rava P, Rosenberg J, Jamorabo D, Sioshansi S, FitzGerald T, DiPetrillo T, Wazer DE, and Hepel JT. Feasibility and Safety of Cavity-Directed Stereotactic Radiosurgery for Brain Metastases. *Advances in Radiation Oncology* 2016 July-Sept; 1(3):141-147.
29. Rae A, Gorovets D, Rava P, Ebner D, Cielo MDD, Kinsella TJ, DiPetrillo TA, and Hepel

JT. Management approach for recurrent brain metastases following upfront radiosurgery may affect risk of subsequent radiation necrosis. *Advances in Radiation Oncology*, 2016. 1(4):294-299.

30. Hepel JT, Leonard KL, Safran H, Ng T, Taber A, Khurshid H, Birnbaum A, BrUOG, Wazer DE and DiPetrillo T. SBRT Boost Following Concurrent Chemoradiation for Locally Advanced NSCLC: A Phase I Dose-escalation Study. *International Journal of Radiation Oncology, Biology, and Physics*, 2016 Dec 1;96(5):1021-1027.
31. Schuster J, Chipko C, Kasper M, Sha S, Ciuba D, Petrikas J, Kuruvilla A, Sandrapaty R, Quiet C, Anderson C, Benda R, Wazer D, Hepel J, Arthur D. Updated feasibility and reproducibility results of multi-institutional study of noninvasive breast tumor bed boost. *Brachytherapy*. 2016 Oct 6. S1538-4721(16)30547-5.
32. Daniel Gorovets, Diandra Ayala-Peacock, David J. Tybor, Paul Rava, Daniel Ebner, Deus Cielo, Georg Norén, David E. Wazer, Michael Chan, and Jaroslav T. Hepel. Multi-institutional Nomogram Predicting Survival Free From Salvage Whole Brain Radiation After Radiosurgery in Patients With Brain Metastases. *International Journal of Radiation Oncology, Biology, and Physics*, 2017 Feb 1;97(2):246-253.
33. Ebner D, Gorovets D, Rava P, Cielo D, Kinsella TJ, DiPetrillo TA, and Hepel JT. Patients with long-term control of systemic disease are a favorable prognostic group for treatment of brain metastases with SRS alone. *World Neurosurgery*, 2016 Nov 9. S1878-8750(16)31154-8.
34. Hepel JT, Heron DE, Mundt AJ, Yashar C, Feigenberg S, Koltis G, Regine WF, Prasad D, Patel P, Sharma N, Hebert M, Wallis N, and Kuettel M. Comparison of On-Site versus On-Line Chart Reviews as Part of the American College of Radiation Oncology (ACRO) Accreditation Program. *Journal of Oncology Practice* 2017 May;13(5):e516-e521.
35. Herrington JD, Knutson N, Schmidt M, Brindle JM, Leonard KL, Hepel JT, and Price MJ. Equivalence of Cyberknife and TrueBeam STx for Spine Irradiation. *Medical Dosimetry*. Submitted
36. Koffer P, Chan J, Rava P, Gorovets D, Ebner D, Savir G, Cielo D, and Hepel JT. Repeat Stereotactic Radiosurgery for Locally Recurrent Brain Metastasis. *World Neurosurgery* 2017 Aug;104:589-593.
37. Abrams MJ, Koffer PP, Wazer DE, and Hepel JT. Post Mastectomy Radiotherapy Improves Survival in Male Breast Cancer. *International Journal of Radiation Oncology, Biology, and Physics*, 2017 Jun 1;98(2):384-391.
38. Fridley JS, Hepel JT, Oyelese AA. Current Treatment of Metastatic Spine Tumors - Surgery and Stereotactic Radiosurgery. *R I Med J* (2013). 2017 Jun 1;100(6):18-20.
39. Ayala-Peacock DN, Attia A, Braunstein SE, Ahluwalia MS, Hepel JT, Chung C, Contessa J, Peiffer AM, Lucas JT, Isom S, Pajewski NM, Kotecha R, Stavas M, Ebner D, Taylor R, Onyeuku NE, Chao ST, Corso C, Ruiz J, Watabe K, Tatter SB, Zadeh G, Chiang VLS, Sneed PK, Fiveash JB, and Chan MD. Prediction of new brain metastases

after Radiosurgery: Validation and analysis of performance of a multi-institutional nomogram. *Journal of Neurooncology* 2017 Nov;135(2):403-411.

40. Yu E, Huang D, Leonard KL, DiPetrillo T, Wazer DE, and Hepel JT. Analysis of Outcomes using Hypofractionated Tumor Bed Boost Combined with Hypofractionated Whole Breast Irradiation for Early Stage Breast Cancer. *Clinical Breast Cancer* 2017 May 25. pii: S1526-8209(17)30115-5.
41. McTyre E, Ayala-Peacock D, Contessa J, Corso C, Chiang V, Chung C, Fiveash J, Ahluwalia M, Kotecha R, Chao S, Attia A, Henson A, Hepel J, Braunstein S, Chan M Multi-Institutional Competing Risks Analysis of Distant Brain Failure and Salvage Patterns after Upfront Radiosurgery without Whole Brain Radiotherapy for Brain Metastasis. *Ann Oncol*. 2018 Feb 1;29(2):497-503.
42. Shah C, Vicini F, Shaitelman SF, Hepel J, Keisch M, Arthur D, Khan AJ, Kuske R, Patel R, Wazer DE. The American Brachytherapy Society consensus statement for accelerated partial-breast irradiation. *Brachytherapy* 2018 Jan - Feb;17(1):154-170.
43. Hepel JT, Arthur D, Shaitelman S, Polgár C, Todor D, Zoberi I, Kamrava M, Major T, Yashar C, and Wazer DE. American Brachytherapy Society Consensus Report for Accelerated Partial Breast Irradiation Using Interstitial Multicatheter Brachytherapy. *Brachytherapy* 2017 Sep - Oct;16(5):919-928.
44. Nihaal Mehta, Peter J. Zavitsanos, Krisztina Moldovan, Adetokunbo Oyelese, Jared S. Fridley, Ziya Gokaslan, Timothy J. Kinsella, and Jaroslav T. Hepel. Local Failure and Vertebral Body Fracture Risk using Multi-fraction SBRT for Spine Metastases. *Advances in Radiation Oncology* 2018. In press.
45. Jaroslav T. Hepel, Catheryn Yashar, Kara L. Leonard, John P. Einck, Sandra Sha, Thomas DiPetrillo, Doreen Wiggins, Theresa A. Graves, David Edmonson, BrUOG, and David E. Wazer. Five Fraction Accelerated Partial Breast Irradiation (APBI) Using Non-invasive Image-guided Breast Brachytherapy (NIBB): Feasibility and Acute. *Brachytherapy* 2018. In press.
46. Zavitsanos PJ, Wazer DE, Hepel JT, Wang Y, Singh K, and Leonard KL. BRCA1 Mutations Associated with Increased Risk of Brain Metastases in Breast Cancer. *Amer. J. of Clin. Onc.* 2018. In press.
47. Hughes RT, Masters AH, McTyre ER, Farris MK, Chung C, Page BR, Kleinberg LR, Hepel J, Contessa JN, Chiang V, Ruiz J, Watabe K, Su J, Fiveash JB, Braunstein S, Chao S, Attia A, Ayala-Peacock DN, Chan MD. Initial SRS for patients with 5-15 brain metastases: results of a multi-institutional experience. *Int J Radiat Oncol Biol Phys*. 2019 Apr 5. pii: S0360-3016(19)30613-3.
48. Tom MC, Hepel JT, Patel R, Kamrava M, Badiyan SN, Cohen GN, Shah C. The American Brachytherapy Society consensus statement for electronic brachytherapy. *Brachytherapy*. 2018 Nov 26. pii: S1538-4721(18)30673-1. [Epub ahead of print]

49. Foster B, Sindhu K, Hepel J, Wazer D, Graves T, Taneja C, Wiggins D, Leonard K. Three-Dimensional Bioabsorbable Tissue Marker Placement is Associated with Decreased Tumor Bed Volume Among Patients Receiving Radiation Therapy for Breast Cancer. *Pract Radiat Oncol*. 2019 Mar;9(2):e134-e141.
50. Sean A. Roles, Jaroslav Hepel, Kara L. Leonard, David E. Wazer, Gene A. Cardarelli, Michelle L. Schwer, Ziad H. Saleh, Eric E. Klein, James M. Brindle, Mark J. Rivard. Programmatic Improvements to the Workflow Associated with the AccuBoost Breast Brachytherapy Procedure. *Brachytherapy* 2019. Submitted.
51. Nack E, Koffer P, Blumberg C, Leonard KL, Huber KE, Fenton MA, Dizon DS, Wazer DE, and Hepel JT. New Cardiac Abnormalities Following Radiation Therapy in Breast Cancer Patients Treated with Trastuzumab. *Clinical Breast Cancer* 2019. Submitted.

#### **Invited Reviews and Editorials (peer-reviewed publications):**

1. Hepel JT and Wazer DE. Should a woman age 70 to 80 years receive radiation after breast-conserving surgery? *Journal of Clinical Oncology*, 2013; 31(19):2377-81.
2. Hepel, JT. Late Toxicity and Cosmetic Outcomes Related to Interstitial Multi-catheter Brachytherapy for Partial Breast Irradiation. *Brachytherapy*, 2014; 13(1):23-26.
3. Hepel JT and Wazer DE. A flawed study should not define a new standard of care. *International Journal of Radiation Oncology, Biology, and Physics* 2015 Feb 1;91(2):255-7.

#### **Letters to the Editor (peer-reviewed publications):**

1. Wazer DE, Hepel JT, Riker AI, Harris JK, Chung C, Khan AJ, Offersen BV, Poortmans P, and Taghian A. Neither Pride nor Prejudice: A focus on the science. *International Journal of Radiation Oncology, Biology, and Physics* 2015 Aug 1;92(5):952-3.

#### **Other Reviews and Commentaries:**

1. Hepel JT and DiPetrillo T. Beyond the Abstract - Intensity-Modulated Radiotherapy of the Prostate After Cryotherapy: Initial Experience. *UroToday.com* (On-line Publication), July 1, 2008.
2. Rivard MJ, Ghadyani HR, Bastien AD, Lutz NN, and Hepel JT. Multi-axis dose accumulation of noninvasive image-guided breast brachytherapy through biomechanical modeling of tissue deformation using the finite element method. Editor's Picks: Brachytherapy, *European Society for Radiotherapy and Oncology (ESTRO) Newsletter* 2015 Nov-Dec;40-42.

#### **Abstracts:**

1. Chu JCH, Gong X, Kirk M, Khan A, Rivard M, Melhus C, Buscher M, Cardarelli G, Hurley A, Hepel JT, et al. Holographic Image Guided Radiation Therapy (HIGRT)



Treatment Planning: a Multi-Institutional Study. (ASTRO Abstract) *Int J Rad Onc Bio Phy*, 2006; 66(3); S664-5.

2. Chu J, Gong X, Cai C, Zusag T, Shott S, Rivard M, Melhus C, Cardarelli G, Hurley A, and Hepel JT. Multi-Institutional Randomized Study to Evaluate a Holographic Display Device for Treatment Planning (ASTRO Abstract). *Int J Rad Onc Bio Phy*, 2007; 69(3):S698-S698.
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4. J. Hiatt, J. Hepel, M. Carol, G. Cardarelli, D. Wazer, and E. Sternick. Physical Principles of Intensity Modulated Electronic Brachytherapy (IMEB). *Medical Physics* 01/2008; 35(6).
5. Hiatt JR, Hepel JT, Cardarelli GA, Carol M, Sternick ES, and Wazer DE. Depth Dose Modulation (DDM) for Electronic Brachytherapy (ABS Abstract). *Brachytherapy*, 2008; 7(2):106-107.
6. Sioshansi S, Hiatt JR, Rivard MJ, Hepel JT, Cardarelli GA, O'Leary S, and Wazer DE. Three-dimensional Dose Modeling of the AccuBoost Mammography-based Image Guided Non-invasive Breast Brachytherapy System for Partial Breast Irradiation. (ASTRO Abstract). *Int J Rad Onc Bio Phy*, 2008; 72(1):S516-7.
7. Hiatt JR, Hepel JT, Carol M, Cardarelli G, Wazer DE, and Sternick ES. Physical Principles of Intensity Modulated Electronic Brachytherapy (IMEB) (ASTRO Abstract). *Int J Rad Onc Bio Phy*, 2008; 72(1):S528.
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24. KL Leonard, JT Hepel, JR Styczynski, TA DiPetrillo, and DE Wazer. Breast Boost Using Non-invasive Image-Guided Breast Brachytherapy vs. *En Face* Electrons: A 2:1 Matched Pair Analysis. *Brachytherapy* 2013; 12(2): S45-6.
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Failure, Brain Metastasis Velocity, and Early Death After Radiosurgery for Brain Metastases. *Int J Rad Onc Bio Phy*, 2017; 99(2S): E78-E79.

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62. M. Soike, E. McTyre, M. Farris, D.N. Ayala-Peacock, J.T. Hepel, B.R. Page, L.R. Kleinberg, J.N. Contessa, and others. Salvage Stereotactic Radiosurgery is Associated with Improved Overall Survival Compared to Whole Brain Radiation in the Setting of Progressive Brain Metastases. *International Journal of Radiation Oncology • Biology • Physics* 2018, Vol. 102, Issue 3, S144.
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64. G Cardarelli, Z Saleh, M Schwer, D Cutright, J Kelley, J Brindle, M Rivard, T Roth, J Hepel, C Liu, E Klein. Effect of Leaf Size and Off-Axis Delivery On Plan Quality for Single Isocenter Multi-Lesion Plans in RayStation. 2019, Accepted.

### **Book Chapters:**

1. Jaroslav T. Hepel, MD, Shirin Sioshansi, MD, Mark Rivard, PhD, and David E. Wazer, MD. "Accelerated Partial Breast Irradiation, 2nd edition." Chapter 24: New Technologies, Part II: Novel sources and delivery systems. Springer, New York, 2009.
2. David E. Wazer, MD and Jaroslav T. Hepel, MD. "Accelerated Partial Breast Irradiation, 2nd edition." Chapter 22: Normal Tissue Toxicity after Accelerated Partial Breast Irradiation. Springer, New York, 2009.
3. Jenna M. Kahn, MD and Jaroslav T. Hepel, MD. "The 5-Minute Clinical Consult, 2013 edition." Chapter: Thymus Cancer. Lippincott, Williams, and Wilkins, Philadelphia, 2012.
4. Jaroslav T. Hepel, MD and Timothy J. Kinsella. "Perez and Brady's Principles and Practice of Radiation Oncology, 6<sup>th</sup> edition." Chapter 82: Osteosarcoma and Other Primary Tumors of Bone. Lippincott, Williams, and Wilkins, Philadelphia, 2013.
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6. Robert D. Legare, Done Dizon, Jennifer S. Gass, Trevor Tejada-Berges, Margaret M. Steinhoff, C. James Sung, Susan Koelliker, Hanan I. Khalil, Jaroslav T. Hepel, William Sikov, and Bachir Sakr. "Principles and Practice of Gynecologic Oncology 6th Edition." Chapter 28: Breast Cancer. Lippincott, Williams, and Wilkins, Philadelphia, 2013.
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10. Jaroslav T. Hepel, MD. "Short Course Breast Radiotherapy, 3<sup>rd</sup> edition." Chapter 25: Non-invasive image-guided breast brachytherapy (NIBB). Springer, New York, 2016.
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13. Jenna M. Kahn, MD and Jaroslav T. Hepel, MD. “The 5-Minute Clinical Consult, 2018 edition.” Chapter: Thymus Cancer. Lippincott, Williams, and Wilkins, Philadelphia, 2017.
14. Jaroslav T. Hepel, MD and Timothy J. Kinsella. “Perez and Brady’s Principles and Practice of Radiation Oncology, 7<sup>th</sup> edition.” Chapter: Osteosarcoma and Other Primary Tumors of Bone. Lippincott, Williams, and Wilkins, Philadelphia 2018.
15. Jenna M. Kahn, MD and Jaroslav T. Hepel, MD. “The 5-Minute Clinical Consult, 2019 edition.” Chapter: Thymus Cancer. Lippincott, Williams, and Wilkins, Philadelphia, 2018.
16. Jenna M. Kahn, MD and Jaroslav T. Hepel, MD. “The 5-Minute Clinical Consult, 2020 edition.” Chapter: Thymus Cancer. Lippincott, Williams, and Wilkins, Philadelphia, *in press*.

## **Invited Presentations**

### **Scientific Oral Presentations:**

#### **Local**

June 2, 2004                      Internal Medicine Grand Rounds  
 Univ. of California at Irvine Medical Center  
*Salvage High-Dose-Rate (HDR) Brachytherapy for Recurrent Head and Neck Cancer.*

#### **National**

Sept. 22, 2008                      American Society of Therapeutic Radiation Oncology (ASTRO)  
 50<sup>th</sup> Annual Meeting  
 Boston, MA  
*Toxicity of 3D-CRT for Accelerated Partial Breast Irradiation.*

April 17, 2013                      American Brachytherapy Society (ABS)  
 Annual Meeting  
 New Orleans, LO  
*Accelerated Partial Breast Irradiation using Non-invasive Image-guided Breast Brachytherapy (NIBB): Feasibility and Early Experience.*

Sept. 17, 2014                      American Society of Therapeutic Radiation Oncology (ASTRO)  
 56<sup>th</sup> Annual Meeting  
 San Francisco, CA  
*Non-invasive Image-guided Breast Brachytherapy (NIBB) to Deliver*



*Accelerated Partial Breast Irradiation (APBI): Analysis of Acute Toxicity and Early Outcomes.*

Oct. 20, 2015 American Society of Therapeutic Radiation Oncology (ASTRO)  
57<sup>th</sup> Annual Meeting  
San Antonio, TX  
*SBRT Boost Following Concurrent Chemoradiation for Locally Advanced NSCLCa: Phase I Dose Escalation Study*

### **International**

June 27, 2016 World Congress of Brachytherapy  
San Francisco, CA  
*Initial Experience of Five Fraction Accelerated Partial Breast Irradiation using Non-invasive Image-guided Breast Brachytherapy (NIBB).*

### **Scientific Poster Presentations:**

### **Local**

March 1994 Learning and Research Fair  
SUNY Potsdam College, Potsdam, NY  
*Interactions of Hydrophilic and Hydrophobic Compounds with Phospholipid Films.*

Oct. 27, 2011 19<sup>th</sup> Annual Research Celebration  
Providence, RI  
*Reduced coverage of axillary level I & II lymph nodes with whole breast irradiation in the prone vs. supine position.*

### **Regional**

April 21-22, 1995 49th Annual Eastern Colleges Science Conference (ECSC)  
Ithaca College, Ithaca, NY  
*Interaction of Hydrophilic and Hydrophobic Biocompounds and Drugs with Phospholipid Films.*

April 21-22, 1995 49th Annual Eastern Colleges Science Conference (ECSC)  
Ithaca College, Ithaca, NY  
*Interaction of Cisplatin with Sulfhydryl Compounds.*

Oct. 22-25, 1995 25th Northeast Regional American Chemical Society Meeting  
Rochester, NY  
*Interaction of Hydrophilic and Hydrophobic Biocompounds and Drugs with Phospholipid Films.*

Oct. 22-25, 1995 25th Northeast Regional American Chemical Society Meeting  
Rochester, NY  
*Medical Applications of Polypyrrole/Heparin Films.*

## National

- May 2001 North American Vascular Biology Organization conference on Atherosclerosis, Thrombosis, and Vascular Biology (ATVB/NAVBO) Washington, DC  
*Shear Stress and Lysophosphatidic Acid Act Synergistically to Activate MAP Kinase ERK1/2.*
- Nov. 5-9, 2006 American Society of Therapeutic Radiation Oncology (ASTRO) 48<sup>th</sup> Annual Meeting Philadelphia, PA  
*Holographic Image Guided Radiation Therapy (HIGRT) Treatment Planning: a Multi-Institutional Study.*
- Oct. 28 – Nov. 1, 2007 American Society of Therapeutic Radiation Oncology (ASTRO) 49<sup>th</sup> Annual Meeting Los Angeles, CA  
*Multi-Institutional Randomized Study to Evaluate a Holographic Display for Radiation Therapy Treatment Planning.*
- Oct. 28 – Nov. 1, 2007 American Society of Therapeutic Radiation Oncology (ASTRO) 49<sup>th</sup> Annual Meeting Los Angeles, CA  
*IMRT Irradiation of the Prostate Following Cryotherapy: Analysis of Late Toxicity.*
- Sept. 20-25, 2008 American Society of Therapeutic Radiation Oncology (ASTRO) 50<sup>th</sup> Annual Meeting Boston, MA  
*Physical Principles of Intensity Modulated Electronic Brachytherapy (IMEB)*
- Sept. 20-25, 2008 American Society of Therapeutic Radiation Oncology (ASTRO) 50<sup>th</sup> Annual Meeting Boston, MA  
*Three-dimensional Dose Modeling of the AccuBoost Mammography-based Image Guided Non-invasive Breast Brachytherapy System for Partial Breast Irradiation*
- Feb. 23-25, 2012 American College of Radiation Oncology (ACRO) 22<sup>nd</sup> Annual Meeting Fort Myers, FL  
*Survival and CNS Control in Patients with Small Cell Lung Cancer who Undergo Salvage Radiosurgery.*
- April 14-18, 2012 American Association of Neurological Surgeons (AANS) 80th Annual Scientific Meeting Miami, FL  
*Survival Among Patients with Greater than 10 Brain Metastases Treated with Stereotactic Radiosurgery.*

- May 10-12, 2012 World Congress of Brachytherapy  
American Brachytherapy Society (ABS)  
Barcelona, Spain  
*Prescription dose evaluation for APBI with non-invasive breast brachytherapy using equivalent uniform dose.*
- Oct. 28 - 31, 2012 American Society of Therapeutic Radiation Oncology (ASTRO)  
52<sup>nd</sup> Annual Meeting  
Boston, MA  
*Breast Boost Using Noninvasive Image-Guided Breast Brachytherapy vs. En Face Electrons: A Matched Pair Analysis*
- Oct. 28 - 31, 2012 American Society of Therapeutic Radiation Oncology (ASTRO)  
52<sup>nd</sup> Annual Meeting  
Boston, MA  
*Dosimetric Accuracy of Ray-Tracing Algorithm for Treatment of Thoracic Spine Lesions Using Robotic Radiosurgery.*
- Oct. 28 - 31, 2012 American Society of Therapeutic Radiation Oncology (ASTRO)  
52<sup>nd</sup> Annual Meeting  
Boston, MA  
*Stereotactic Radiosurgery as Salvage for Brain Metastases from Small-cell Lung Cancer.*
- Oct. 28 - 31, 2012 American Society of Therapeutic Radiation Oncology (ASTRO)  
52<sup>nd</sup> Annual Meeting  
Boston, MA  
*Associating Risk with Survival and Brain Recurrence in Patients with Non-Small Cell Lung Cancer Treated Aggressively for Synchronous Brain Metastases.*
- Nov. 25-30, 2012 Radiologic Society of North America (RSNA)  
98<sup>th</sup> Annual Meeting  
Chicago, IL  
*Improved Outcomes in Patients with Synchronous Brain Metastases from Non-Small Cell Lung Cancer Staged with PET-CT Compared to CT Alone.*
- Feb. 13-16, 2013 American College of Radiation Oncology (ACRO)  
23<sup>rd</sup> Annual Meeting  
San Antonio, TX  
*Treatment Planning Approaches to Minimizing Risk of Radionecrosis in Robotic Radiosurgery for Brain Metastases.*
- April 17-20, 2013 American Brachytherapy Society (ABS)  
Annual Meeting  
New Orleans, LO  
*Chest wall dose assessment in patients treated using non-invasive*

*image-guided breast brachytherapy APBI.*

- April 17-20, 2013      American Brachytherapy Society (ABS)  
Annual Meeting  
New Orleans, LO  
*Breast Boost Using Non-invasive Image-Guided Breast Brachytherapy vs. En Face Electrons: A 2:1 Matched Pair Analysis.*
- Aug. 4-8, 2013      American Association of Physicists in Medicine (AAPM)  
Annual Meeting  
Indianapolis, IN  
*Dosimetric effect of patient arm position in spinal CyberKnife robotic Radiosurgery.*
- Sept 22-25, 2013      American Society of Therapeutic Radiation Oncology (ASTRO)  
53<sup>rd</sup> Annual Meeting  
Atlanta, GA  
*Experience Using Fractionated Stereotactic Radiosurgery to Treat Large CNS Metastases.*
- Sept 22-25, 2013      American Society of Therapeutic Radiation Oncology (ASTRO)  
53<sup>rd</sup> Annual Meeting  
Atlanta, GA  
Poster Discussion  
*Factors Influencing Local Control and Survival in Patients Treated with Radiosurgery Following Surgical Resection of CNS Metastases.*
- April 3-5, 2014      American Brachytherapy Society (ABS)  
Annual Meeting  
San Diego, CA  
Poster Discussion  
*Factors Influencing Eligibility for Breast Boost Using Non-invasive Image-Guided Breast Brachytherapy (NIBB)*
- Sept. 14-17, 2014      American Society of Therapeutic Radiation Oncology (ASTRO)  
56<sup>th</sup> Annual Meeting  
San Francisco, CA  
*Improving patient selection for stereotactic radiosurgery as the initial radiotherapy approach for brain metastases.*
- Sept. 14-17, 2014      American Society of Therapeutic Radiation Oncology (ASTRO)  
56<sup>th</sup> Annual Meeting  
San Francisco, CA  
*Comparison of Fractionated Stereotactic Radiosurgery and Single-Fraction Stereotactic Radiosurgery for the Treatment of Brain Metastases.*
- Sept. 14-17, 2014      American Society of Therapeutic Radiation Oncology (ASTRO)  
56<sup>th</sup> Annual Meeting

- San Francisco, CA  
*Patterns of Regional Failure and Evaluation of LN Dose in Early-Stage NSCLC Treated With SBRT.*
- Sept. 14-17, 2014 American Society of Therapeutic Radiation Oncology (ASTRO)  
56<sup>th</sup> Annual Meeting  
San Francisco, CA  
*Evaluation of Interfraction Changes in Tumor Volume to Predict Long-Term Outcomes of SBRT in Early-Stage NSCLC.*
- Sept. 14-17, 2014 American Society of Therapeutic Radiation Oncology (ASTRO)  
56<sup>th</sup> Annual Meeting  
San Francisco, CA  
*Re-treatment of Brain Metastases using Stereotactic Radiosurgery.*
- Oct. 18-21, 2015 American Society of Therapeutic Radiation Oncology (ASTRO)  
57<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Multi-institutional Nomogram Predicting Survival Free From Salvage Whole-Brain Radiation After Radiosurgery for Brain Metastases.*
- Oct. 18-21, 2015 American Society of Therapeutic Radiation Oncology (ASTRO)  
57<sup>th</sup> Annual Meeting  
San Antonio, TX  
*New Cardiac Abnormalities Following Radiation Therapy in Breast Cancer Patients Treated With Trastuzumab.*  
Poster Walk
- Oct. 18-21, 2015 American Society of Therapeutic Radiation Oncology (ASTRO)  
57<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Patients With Long-term Control of Systemic Disease Are a Favorable Prognostic Group for Treatment of Brain Metastases With SRS Alone.*
- Oct. 18-21, 2015 American Society of Therapeutic Radiation Oncology (ASTRO)  
57<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Management approach for recurrent brain metastases following upfront radiosurgery may affect risk of subsequent radiation necrosis.*
- March 17-19, 2016 American College of Radiation Oncology (ACRO)  
Annual Meeting  
Orlando, FL  
*Comparison of On-site versus On-line Chart Reviews as Part of the ACRO Accreditation Program.*  
Poster Walk
- Sept. 24-27, 2017 American Society of Therapeutic Radiation Oncology (ASTRO)  
59<sup>th</sup> Annual Meeting

San Diego, CA  
*Surgical Resection and Posterior Fossa Location Increase the Incidence of Leptomeningeal Disease in Patients Treated with Stereotactic Radiosurgery for Brain Metastases.*

Sept. 24-27, 2017 American Society of Therapeutic Radiation Oncology (ASTRO)  
59<sup>th</sup> Annual Meeting  
San Diego, CA  
*Using a Novel Machine Learning Technique to Predict Brain Metastasis Velocity Following Stereotactic Radiosurgery for Brain Metastases.*

Sept. 24-27, 2017 American Society of Therapeutic Radiation Oncology (ASTRO)  
59<sup>th</sup> Annual Meeting  
San Diego, CA  
*Using a Novel Machine Learning Technique to Predict Radiation Oncology Outcomes.*

Sept. 24-27, 2017 American Society of Therapeutic Radiation Oncology (ASTRO)  
59<sup>th</sup> Annual Meeting  
San Diego, CA  
*Five Fraction Accelerated Partial Breast Irradiation (APBI) Using Non-invasive Image-guided Breast Brachytherapy (NIBB): Feasibility and Acute Toxicity.*

Oct. 21-24, 2018 American Society of Therapeutic Radiation Oncology (ASTRO)  
60<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Treatment of Brainstem Metastases.*

Oct. 21-24, 2018 American Society of Therapeutic Radiation Oncology (ASTRO)  
60<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Dosimetric Comparison of Deep Inspiration Breath-Hold versus Free Breathing for Right-Sided Breast Cancer with Comprehensive Nodal Radiation.*

Oct. 21-24, 2018 American Society of Therapeutic Radiation Oncology (ASTRO)  
60<sup>th</sup> Annual Meeting  
San Antonio, TX  
*Multi-institutional Registry Study of Accelerated Partial Breast Irradiation (APBI) Using Non-invasive Image-guided Breast Brachytherapy (NIBB).*  
Poster Discussion

**Invited Lectures:**

**Local**

Oct. 22, 2009 Neuroscience Lecture Series

Greater Baltimore Medical Center, Baltimore, MD  
*Intracranial Stereotactic Radiosurgery*

Jan 14, 2010      Medical Grand Rounds  
 St. Agnes Hospital, Baltimore, MD  
*Stereotactic Radiotherapy for Early Stage Lung Cancer*

April 8, 2011      Radiation Oncology Residency Physics Course  
 Tufts Medical Center, Boston, MA  
*Radiosurgery Treatment Delivery*

April 12, 2011      Breast Health Center Grand Rounds  
 Women and Infants Hospital, Providence, RI  
*Accelerated Partial Breast Irradiation: Supporting Data, Established Techniques, and Novel Directions*

April 15, 2011      Radiation Oncology Nursing Lecture Series (CME)  
 Rhode Island Hospital, Providence, RI  
*Cyberknife and Tumor Tracking*

June 17, 2011      Radiation Oncology Grand Rounds  
 Tufts Medical Center, Boston, MA  
*Stereotactic Body Radiotherapy (SBRT) for Spine Metastasis*

August 30, 2011      Medical Grand Rounds  
 Rhode Island Hospital, Providence, RI  
 Miriam Hospital, Providence, RI  
 Newport Hospital, Newport, RI  
*2011 Update – Current Topics in Oncology: Breast Cancer*

Sept. 13, 2011      Breast Health Center Grand Rounds  
 Women and Infants Hospital, Providence, RI  
*Oligometastatic Disease in Breast Cancer and the Role of SBRT*

July 10, 2012      Neuro-Oncology Grand Rounds  
 Rhode Island Hospital, Providence, RI  
*Radiosurgery for Brain Metastasis.*

July 20, 2012      Radiation Therapist Lecture (CME)  
 Rhode Island Hospital, Providence, RI  
*Non-invasive Image-guided Breast Brachytherapy (NIBB) to deliver APBI: BrUOG 251 update.*

Feb.17, 2017      Radiation Therapist Lecture (CME)  
 Rhode Island Hospital, Providence, RI  
*APBI of Non-invasive Image-guided Breast Brachytherapy (NIBB) Rationale, Technique, and Update of BrUOG 251 and 291.*

May 10, 2019      Oncology Fellow Didactics

Women's Infants Hospital, Providence, RI  
*Radiation Therapy in Early Breast Cancer*

**Regional**

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- Oct. 4, 2007            AAPM - New England Chapter Annual Meeting  
*Electronic Brachytherapy: Future directions.*
- April 30, 2011        Breast Imaging Seminar  
Anne C. Pappas Center for Breast Imaging  
Rhode Island Hospital, Providence, RI  
*Imaging for Planning and Guidance of Modern Breast  
Radiation Therapy*
- June 15, 2012        AAPM - New England Chapter Annual Meeting  
Providence, RI  
*Non-invasive Image-guided Breast Brachytherapy (NIBB) to deliver  
APBI: Rationale and Technique.*
- Sept. 27, 2012       Coastal Medical – CME on Cancer Diagnosis, Screening and  
Management.  
Providence, RI  
*Breast Cancer*
- Oct. 18, 2014        Avenues of Healing  
Warwick, RI  
*The Mastectomy Myth: Is Mastectomy Necessary for Cure?*
- Oct. 9, 2015        American Cancer Society (ACS) Cancer Action Network (CAN)  
Rhode Island Research Breakfast  
Providence, RI  
Key Note Speaker: *Innovations in Cancer Research*
- May 5, 2017        Chest Conference Series for Brown Affiliated Hospitals  
Providence, RI  
*SBRT for early stage lung cancer*

**National**

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- Oct. 26, 2011        Lee Ann Riley Memorial Breast Cancer Symposium  
Bridgeport, CT  
*Accelerated Partial Breast Irradiation (APBI)*
- May 18-21, 2012     Gamma Knife Training Course  
San Juan, Puerto Rico
1. *Basic Principles of Radiosurgery vs. Radiotherapy*
  2. *Basic Radiobiology*
  3. *Brain Metastases*
  4. *Gliomas*



Feb. 8, 2014 American Brachytherapy Society  
Quality Management Brachytherapy School 2014  
Orlando, FL  
*Breast Brachytherapy Guidelines*

Feb. 8, 2014 American Brachytherapy Society  
Quality Management Brachytherapy School 2014  
Orlando, FL  
*QM for Breast Brachytherapy*

Feb. 8, 2014 American Brachytherapy Society  
Quality Management Brachytherapy School 2014  
Orlando, FL  
*QM for Accuboot*

Feb. 8, 2014 American Brachytherapy Society  
Quality Management Brachytherapy School 2014  
Orlando, FL  
Panelist: *Treatment planning: TG43 to heterogeneity correction*

Feb. 24, 2014 Varian Webinar Lecture Series  
*Non-invasive Breast Brachytherapy for APBI: A new prospective*

April 4, 2014 American Brachytherapy Society (ABS)  
Annual Meeting  
San Diego, CA  
*Non-invasive image-guided breast brachytherapy for APBI*

April 4, 2014 American Brachytherapy Society (ABS)  
Annual Meeting  
San Diego, CA  
Moderator: *Challenging Cases in Breast Brachytherapy*

March 18, 2016 American College of Radiation Oncology (ACRO)  
Annual Meeting  
Orlando, FL  
*ACRO Accreditation Update*

April 8, 2016 Accuboot Users Meeting  
Boca Rotan, FL  

1. *Rational and Update of NIBB APBI*
2. *Patient Selection for NIBB*
3. *Dosimetry of NIBB*
4. *Challenging Cases*

April 22, 2016 Accuboot Users Meeting  
San Diego, CA  

1. *Rational and Update of NIBB APBI*
2. *Patient Selection for NIBB*

3. *Dosimetry of NIBB*
4. *Challenging Cases*

March, 2017	American College of Radiation Oncology (ACRO) Annual Meeting Orlando, FL <i>ACRO Accreditation Review and Update</i>
April 20, 2017	American Brachytherapy Society (ABS) Annual Meeting Boston, MA Moderator: <i>Novel Applications of Breast Brachytherapy</i>
April 21, 2017	American Brachytherapy Society (ABS) Annual Meeting Boston, MA Moderator: <i>Scientific Session: Socioeconomic Proffered Papers</i>
March, 2018	American College of Radiation Oncology (ACRO) Annual Meeting Orlando, FL <i>ACRO Accreditation Review and Update</i>
June 7, 2018	American Brachytherapy Society (ABS) Annual Meeting San Francisco, CA <i>Individualizing Breast Brachytherapy Treatment Recommendations: Non-invasive Image-guided Breast Brachytherapy.</i>
Oct. 19, 2018	American Brachytherapy Society (ABS) Annual Meeting San Antonio, TX <i>Can APBI be the Preferred Option for Early Stage Breast Cancer: Techniques and limitations.</i>
March 8, 2019	American College of Radiation Oncology (ACRO) Annual Meeting Orlando, FL <i>ACRO Accreditation Update 2019</i>
April 29, 2019	Varian Webinar Lecture Series <i>Non-Invasive Breast Brachytherapy – A Clinical Update</i>
June 13, 2019	American Brachytherapy Society (ABS) Annual Meeting Miami, FL Breast Session I: <i>Partial Breast Irradiation 2019- Data, Guidelines, and Novel Approaches: Novel PBI Techniques</i>

June 14, 2019 American Brachytherapy Society (ABS)  
Annual Meeting  
Miami, FL  
Breast Session II: *Partial Breast Irradiation- Targets and Techniques: Non-invasive Image-guided Breast Brachytherapy (NIBB)*

### **International**

June 29, 2016 World Congress of Brachytherapy  
San Francisco, CA  
Moderator: *Eye Plaques for Choroidal Melanoma*

June 29, 2016 World Congress of Brachytherapy  
San Francisco, CA  
*Results of Non-invasive Image-guided Breast Brachytherapy (NIBB)*

### **Editorial Activity**

#### **Associate Editor**

2019 – Present *Frontier in Radiation Oncology* - Impact Factor 4.416 (2018)

#### **Member - Editorial board**

2010 – 2019 *Frontier in Radiation Oncology* - Impact Factor 4.416 (2018)  
2013 – Present *American Journal of Clinical Oncology* - Impact Factor 3.062  
2014 – Present *Brachytherapy* - Impact Factor 2.758  
2019 – Present *International Journal of Radiation Oncology, Biology, and Physics*

#### **Ad Hoc Reviewer**

2009 – 2014 *Brachytherapy*  
2011 – 2013 *American Journal of Clinical Oncology*  
2011 – 2019 *International Journal of Radiation Oncology, Biology, and Physics*  
2012 *BMC Research Notes*  
2013 – Present *Radiation Oncology*  
2013 – Present *Cancer*  
2014 – Present *Medical Dosimetry*  
2015 *Breast Cancer: Targets and Therapy*  
2015 – Present *Journal of Contemporary Brachytherapy*  
2016 – Present *Practical Radiation Oncology*  
2018 – Present *Advances in Radiation Oncology*

### **Clinical Trials**

1. Principle Investigator  
BrUOG BR 251: Accelerated Partial Breast Irradiation using Non-invasive Image-guided Breast Brachytherapy (NIBB) for Early Stage Breast Cancer: A Toxicity Assessment.
2. Co- Principle Investigator  
BrUOG L 259: Stereotactic Body Radiation for Consolidation after Standard Chemoradiation for Stage III Lung Cancer.

3. Co- Principle Investigator  
BrUOG 246: Cabazitaxel and Radiation For Patients With Pathologically Determined Stage 3 Prostate Cancer and/or Patients with PSA Elevation ( $\geq 0.1$ ng/ml -  $< 2.0$  ng/mL) Following Radical Prostatectomy.
4. Principle Investigator  
BrUOG BR 291: Five Fraction Partial Breast Irradiation using Non-invasive Image-guided Breast Brachytherapy (NIBB).
5. Principle Investigator  
BrUOG BR 351: Pre-operative Accelerated Partial breast Irradiation (APBI) using Non-invasive Image-Guided Breast Brachytherapy (NIBB).
6. Co-Principle Investigator  
BrUOG L 358: Durvalumab and Consolidation SBRT Following Chemoradiation for Locally Advanced Stage III Non-Small Cell Lung.
7. RIH Site - Principle Investigator  
DFCI-INSIGHt: Individualized Screening trial of Innovative Glioblastoma Therapy
8. RIH Site - Principle Investigator  
DFCI Brain Mets: Whole brain radiation versus stereotactic radiation in patients with 5-20 brain metastases: A phase III, randomized clinical trial.

## Grants

1. **Grant Title:** APBI using Non-invasive Image-guided Breast Brachytherapy (NIBB)  
**Funding Agency:** Advanced Radiation Therapy, LLC  
**Amount:** \$80,000  
**Period:** 07/01/2011 – 6/31/2016  
**Role:** Principal investigator
2. **Grant Title:** R01CA163370: “Improving Cancer Treatment Planning by DMH-Based Inverse Optimization”  
**Funding Agency:** National Cancer Institute (NCI)  
**Amount:** \$207,500 annual direct cost.  
**Period:** 07/09/2012 – 03/31/2013  
**Role:** Co-Investigator (PI: IB Mihaylov, Ph.D.)
3. **Grant Title:** Five Fraction Partial Breast Irradiation using Non-invasive Image-guided Breast Brachytherapy (NIBB).  
**Funding Agency:** Advanced Radiation Therapy, LLC  
**Amount:** \$80,000  
**Period:** 10/01/2013 – 9/3/2018  
**Role:** Principal investigator
4. **Grant Title:** Pre-operative Accelerated Partial breast Irradiation (APBI) using Non-invasive Image-Guided Breast Brachytherapy (NIBB).  
**Funding Agency:** Advanced Radiation Therapy, LLC

**Amount:** \$90,000

**Period:** 6/1/2019 – 5/31/2022

**Role:** Principal investigator